

# **CALIFORNIA ENERGY COMMISSION**

## **EXPRESS TERMS**

### **PROPOSED AMENDMENTS TO**

## **APPLIANCE EFFICIENCY REGULATIONS**

### **RELATED TO RESIDENTIAL CLOTHES WASHERS**

**CALIFORNIA CODE OF REGULATIONS, TITLE 20:  
DIVISION 2, CHAPTER 4, ARTICLE 4, SECTIONS 1601 - 1608**

**Docket 03-AAER-1(RCW)**

#### ***Please Note:***

***There are no changes proposed in Sections 1601, 1602, or 1605, but excerpts from those sections are nevertheless reprinted here, in order to provide the reader with a more complete set of the provisions related to residential clothes washers***

**September 2003**



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**CALIFORNIA CODE OF REGULATIONS, TITLE 20:  
DIVISION 2, CHAPTER 4, ARTICLE 4, SECTIONS 1601-1608:  
APPLIANCE EFFICIENCY REGULATIONS**

**Section 1601. Scope.**

This Article applies to the following types of new appliances, if they are sold or offered for sale in California, except those sold wholesale in California for final retail sale outside the state and those designed and sold exclusively for use in recreational vehicles, or other mobile equipment. Each provision applies only to units manufactured on or after the effective date of the provision.

\* \* \*

- (p) Clothes washers that are federally-regulated consumer products; and commercial clothes washers.

\* \* \*

NOTE: Authority cited: Sections 25213, 25218(e), 25402(a)-(c), 25553(b), 25960 Public Resources Code.  
Reference: Sections 25216.5(d), 25402(a)-(c), 25553(b), 25960, Public Resources Code.

**Section 1602. Definitions.**

**(a) General.**

In this Article the following definitions apply. If a term is not defined here, the applicable definition in NAECA, EPAct, or the test methods listed in Section 1604 shall apply where it is reasonable to do so.

\* \* \*

“CFR” means Code of Federal Regulations.

\* \* \*

“Consumer product” means any article of a type which, to any significant extent, is distributed in commerce for personal use or consumption by individuals.

\* \* \*

“Federally-regulated appliance” means an appliance that is federally-regulated commercial and industrial equipment or a federally-regulated consumer product.

\* \* \*

“Federally-regulated consumer product” means a consumer product for which there exists a test method and an energy conservation standard prescribed by or under NAECA.

\* \* \*

“Gallon (g)” means U.S. liquid gallon.

\* \* \*

“kWh” means kilowatt-hour.

\* \* \*

**(p) Clothes Washers.**

“Automatic clothes washer” means a clothes washer that has a control system that is capable of scheduling a pre-selected combination of operations, such as regulation of water temperature, regulation of the water fill level, and performance of wash, rinse, drain, and spin functions without the need for user intervention subsequent to the initiation of machine operation. Some models may require user intervention to initiate these different segments of the cycle after the machine has begun operation, but they do not require the user to intervene to regulate the water temperature by adjusting the external water faucet valves.

“Clothes washer” means an appliance designed to clean clothes, utilizing a water solution of soap or detergent and mechanical agitation or other movement.

“Commercial clothes washer” means a soft mount front-loading or soft mount top-loading clothes washer with clothes container compartment no greater than 3.5 ft<sup>3</sup> for horizontal-axis clothes washers, or no greater than 4.0 ft<sup>3</sup> for vertical-axis clothes washers, that is designed for use in (1) applications where the occupants of more than one household will be using it, such as multi-family housing common areas and coin laundries; or (2) other commercial applications.

“Compact clothes washer” means a clothes washer of less than 1.6 ft<sup>3</sup> in clothes container compartment capacity.

“Cycle” means a sequence of operations of a clothes washer that performs a complete washing operation.

“Energy factor” of a clothes washer means ft<sup>3</sup> per kWh per cycle, as determined using the applicable test method in Section 1604(p).

“Front-loading clothes washer” means a clothes washer with the clothes container compartment access located on the front of the machine.

“Modified energy factor (MEF)” of a clothes washer means the quotient of the ft<sup>3</sup> capacity of the clothes container divided by the total clothes washer energy consumption per cycle, with such energy consumption expressed as the sum of the machine electrical energy consumption, the hot water energy

consumption, and the energy required for removal of the remaining moisture in the wash load, as determined using the applicable test method in Section 1604(p).

“Semi-automatic clothes washer” means a clothes washer that is the same as an automatic clothes washer except that user intervention is required to regulate the water temperature by adjusting the external water faucet valves.

“Soft mount clothes washer” means a clothes washer that does not require mechanical fastening to a floor for proper operating performance under typical commercial clothes washer applications.

“Standard clothes washer” means a clothes washer of 1.6 ft<sup>3</sup> or more in clothes container compartment capacity.

“Suds-saving” means a feature or option on a clothes washer which allows the user to store used wash water in an external laundry tub for use with subsequent wash loads.

“Top-loading clothes washer” means a clothes washer with the clothes container compartment access located on the top of the machine.

“Water factor” means the quotient of the total weighted per-cycle water consumption divided by the capacity of the clothes washer, determined using the applicable test method in Section 1604(p).

\* \* \*

NOTE: Authority cited: Sections 25213, 25218(e), 25402(a)-(c), 25553(b), 25960 Public Resources Code.  
Reference: Sections 25216.5(d), 25402(a)-(c), 25553(b), 25960, Public Resources Code.

#### **Section 1602.1. Rules of Construction.**

**[No changes proposed to Section 1602.1]**

#### **Section 1603. Testing: All Appliances.**

**[No changes proposed to Section 1603]**

## Section 1604. Test Methods for Specific Appliances.

\* \* \*

(p) **Clothes Washers.** The test methods for clothes washers are shown in Table P-1.

**Table P-1**  
**Clothes Washer Test Methods**

<i>Appliance</i>	<i>Test Method</i>
Clothes washers that are consumer products	10 CFR Section 430.23(j) (Appendix J to Subpart B of Part 430) (2003)
Commercial clothes washers	10 CFR Section 430.23(j) (Appendix J1 to Subpart B of Part 430) (2003)

\* \* \*

The following documents are incorporated by reference in Section 1604.

\* \* \*

### FEDERAL TEST METHODS

CFR, Title 10, Section 430.23 (2001)

CFR, Title 10, Section 430.23 (2003)

\* \* \*

Copies available from:

Superintendent of Documents  
U.S. Government Printing Office  
Washington, DC 20402  
[www.access.gpo.gov/nara/cfr](http://www.access.gpo.gov/nara/cfr)

\* \* \*

NOTE: Authority cited: Sections 25213, 25218(e), 25402(a)-(c), 25553(b), 25960 Public Resources Code.  
Reference: Sections 25216.5(d), 25402(a)-(c), 25553(b), 25960, Public Resources Code.



**Section 1605. Energy Performance, Energy Design, Water Performance, and Water Design Standards: In General.**

**[No changes proposed to Section 1605]**

- (a) **California Standards that are the Same as Federal Standards.** Section 1605.1 contains standards that are the same as the federal standards contained in, or adopted in regulations pursuant to, NAECA or EPCA.
- (1) The standards in Section 1605.1 are applicable as federal law to the sale of appliances in California and the rest of the United States. The standards apply to federally-regulated consumer products and federally-regulated commercial and industrial equipment. Under 42 U.S.C. Sections 6302(a)(5), 6316(a), and 6316(b)(1), which are enforced by the U.S. Department of Energy, no appliance listed in this Section may be sold in the United States unless the appliance complies with the applicable standard listed in this Section as determined using the applicable test method listed in Section 1604, and with all other requirements of federal law.
  - (2) Each standard in Section 1605.1 is also adopted in this Article as California state law applicable to the sale and offering for sale of appliances in California, if the corresponding federal standard is repealed or becomes inoperable, inapplicable, or otherwise invalid as federal law. Immediately upon the effect of such federal repeal or invalidity the standard becomes effective as California state law, and no appliance previously covered by the federal standard shall be sold or offered for sale in the state unless the appliance complies with the state standard as determined using the applicable test method listed in Section 1604, and with all other requirements of this Article. Provided, however, that if a waiver from federal preemption is required for a standard in Section 1605.1, the state standard takes effect as California state law only on the effective date of a U.S. Department of Energy waiver from federal preemption.
- (b) **California Standards for Federally-Regulated Appliances.** Section 1605.2 contains standards that are exclusively California standards. They are applicable as state law to the sale and offering for sale of appliances in California. Because the standards apply to federally-regulated appliances, they take effect as state law only on (1) the effective date of a U.S. Department of Energy waiver from federal preemption; or (2) one year after removal of federal preemption by action such as a change in federal law, but no earlier than July 1, 2004. When an applicable standard in Section 1605.2 takes effect as state law, no appliance may be sold or offered for sale in California unless the appliance complies with the standard as determined using the applicable test method in Section 1604 (and with all the other applicable requirements of this Article).
- (c) **California Standards Applicable to Sale and Installation.** Section 1605.3 contains standards that are exclusively California standards. They are applicable as state law to the sale or offering for sale of appliances in California. No appliance may be sold or offered for sale in California unless the appliance complies with the applicable standard in Section 1605.3 as determined using the applicable test method listed in Section 1604 (and with all the other requirements of this Article).

\* \* \*

NOTE: Authority cited: Sections 25213, 25218(e), 25402(a)-(c), 25553(b), 25960 Public Resources Code.  
Reference: Sections 25216.5(d), 25402(a)-(c), 25553(b), 25960, Public Resources Code.

**Section 1605.1. Federal and State Standards for Federally-Regulated Appliances.**

\* \* \*

**(p) Clothes Washers.**

- (1) **Energy Efficiency Standards for Clothes Washers.** The energy factor and modified energy factor of clothes washers that are consumer products shall be not less than the applicable values shown in Table P-2.

**Table P-2**  
**Energy Efficiency Standards for Residential Clothes Washers**

<i>Appliance</i>	<i>Minimum Energy Factor [ft<sup>3</sup>/(kWh/cycle)] Effective May 14, 1994</i>	<i>Minimum Modified Energy Factor [ft<sup>3</sup>/(kWh/cycle)]</i>	
		<i>Effective January 1, 2004</i>	<i>Effective January 1, 2007</i>
Top-loading compact clothes washers	0.90	0.65	0.65
Top-loading standard clothes washers	1.18	1.04	1.26
Front-loading clothes washers	N/A	1.04	1.26

- (2) **Energy Design Standard for Top-Loading Semi-Automatic Clothes Washers and Suds-Saving Clothes Washers.** Top-loading semi-automatic clothes washers that are consumer products and suds-saving clothes washers that are consumer products shall have an unheated rinse water option.
- (3) **Energy Design Standard for Front-Loading Clothes Washers.** Until December 31, 2003, front-loading clothes washers that are consumer products shall have an unheated rinse water option.
- (4) **Water Efficiency Standards for Clothes Washers.** See Sections 1605.2(p) and 1605.3(p) for water efficiency standards for clothes washers.
- (5) **Clothes Washers that are Not Consumer Products.** See Section 1605.3(p) for energy efficiency standards and energy design standards for clothes washers that are not consumer products.

\* \* \*

NOTE: Authority cited: Sections 25213, 25218(e), 25402(a)-(c), 25553(b), 25960 Public Resources Code.  
Reference: Sections 25216.5(d), 25402(a)-(c), 25553(b), 25960, Public Resources Code.

**Section 1605.2. State Standards for Federally-Regulated Appliances.**

\* \* \*

**(p) Clothes Washers.**

**(1) Water Efficiency Standards for Residential Clothes Washers.**

The water factor of clothes washers that are consumer products shall not be more than the applicable values shown in Table P-3.

**Table P-3**  
**Water Efficiency Standards for Clothes Washers**

<u>Appliance</u>	<u>Maximum Water Factor</u> <u>(Gallons/cubic foot)</u>	
	<u>Effective</u> <u>January 1, 2007</u>	<u>Effective</u> <u>January 1, 2010</u>
<u>Top-loading clothes washers</u>	<u>8.5</u>	<u>6.0</u>
<u>Front-loading clothes washers</u>	<u>8.5</u>	<u>6.0</u>

See Section 1605.3(p) for water efficiency standards for clothes washers that are not consumer products.

**(2) Energy Efficiency Standards for Clothes Washers.** See Sections 1605.1(p) and 1605.3(p) for energy efficiency standards and energy design standards for clothes washers.

\* \* \*

NOTE: Authority cited: Sections 25213, 25218(e), 25402(a)-(c), 25553(b), 25960 Public Resources Code.  
Reference: Sections 25216.5(d), 25402(a)-(c), 25553(b), 25960, Public Resources Code.

### Section 1605.3. State Standards for Non-Federally-Regulated Appliances.

\* \* \*

#### (p) Commercial Clothes Washers.

- (1) **Energy and Water Efficiency Standards for Commercial Front-Loading and Commercial Top-Loading Automatic Clothes Washers.** The modified energy factor and water factor of commercial front-loading and commercial top-loading automatic clothes washers manufactured on or after the dates indicated in Table P-4 that are not consumer products shall be not less than (modified energy factor) and not more than (water factor) the applicable values shown in Table P-4.

**Table P-4**  
**Standards for Commercial Clothes Washers**

<i>Appliance</i>	<i>Clothes Container Compartment Capacity (ft<sup>3</sup>)</i>	<i>Minimum Modified Energy Factor Effective January 1, 2005</i>	<i>Maximum Water Factor Effective January 1, 2007</i>
Front-loading clothes washers	< 3.5 ft <sup>3</sup>	1.26	9.5
Top-loading clothes washers	< 1.6 ft <sup>3</sup>	0.65	9.5
	≥ 1.6 ft <sup>3</sup> and < 4.0 ft <sup>3</sup>	1.26	9.5

- (2) **Energy Design Standard for Commercial Top-Loading Semi-Automatic Clothes Washers and Commercial Suds-Saving Clothes Washers.** Commercial top-loading semi-automatic clothes washers and commercial suds-saving clothes washers manufactured on or after January 1, 2005 shall have an unheated rinse water option.
- (3) **Other Clothes Washers.** See Section 1605.1(p) and 1605.2(p) for energy and water efficiency standards and energy design standards for clothes washers that are federally-regulated consumer products.

\* \* \*

NOTE: Authority cited: Sections 25213, 25218(e), 25402(a)-(c), 25553(b), 25960 Public Resources Code.  
Reference: Sections 25216.5(d), 25402(a)-(c), 25553(b), 25960, Public Resources Code.

## Section 1606. Filing by Manufacturers; Listing of Appliances in Database.

[No changes proposed to Section 1606 except within Table U]

\* \* \*

**Table U**  
**Data Submittal Requirements**

	<i>Appliance</i>	<i>Required Information</i>	<i>Permissible Answers</i>
P	Clothes Washers that are federally regulated consumer products	*Type	Front-loading, top loading
		*Controls	Automatic, semi-automatic, other (specify)
		*Axis	Horizontal, vertical
		Suds-Saving	Yes, no
		Combination Washer/Dryer <sup>1</sup>	Yes, no
		Clothes Container Compartment Capacity	
		Power Consumption Per Cycle <sup>1</sup>	
		Water Consumption Per Cycle	
		Energy Factor	
		Water Factor	
		Remaining Moisture Content	
	Clothes Washers that are not federally regulated consumer products	*Type	Front-loading, top loading
		*Controls	Automatic, semi-automatic, other (specify)
		*Axis	Horizontal, vertical
		Suds-Saving	Yes, no
		Combination Washer/Dryer	Yes, no
		Clothes Container Compartment Capacity	
		Power Consumption Per Cycle	
		Water Consumption Per Cycle	
		Energy Factor	
		Water Factor	
		Remaining Moisture Content (required only on and after January 1, 2004)	

\* “Identifier” information as described in Section 1606(e).

1. Voluntary

\* \* \*

NOTE: Authority cited: Sections 25213, 25218(e), 25402(a)-(c), 25553(b), 25960 Public Resources Code.  
Reference: Sections 25216.5(d), 25402(a)-(c), 25553(b), 25960, Public Resources Code.

## Section 1607. Marking of Appliances.

[No changes proposed to Section 1607]

## Section 1608. Compliance, Enforcement, and General Administrative Matters.

[No changes proposed to Section 1608]